

PATENT ABSTRACTS OF JAPAN

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(54) IMMERSION MEMBRANE APPARATUS

(57)Abstract:

PURPOSE: To effectively peel the gel layer and cake layer bonded to a membrane surface, in an immersion membrane apparatus wherein a membrane unit is immersed in the liquid of a treatment tank and the filtered treated water transmitted through a membrane is obtained, by providing the apparatus with a coarse air bubble diffusing device and a fine air bubble diffusing device under the membrane unit within the treatment tank.

CONSTITUTION: The immersion membrane apparatus wherein a membrane unit 11 is immersed in the liquid of a treatment tank 10 and the filtered treated water transmitted through a membrane is obtained, is provided with a coarse air bubble diffusing device 14 and a fine air bubble diffusing device 15 under the membrane unit 11 within the treatment tank 10. By this constitution, the gel layer and cake layer bonded to a membrane surface are effectively peeled by the min. energy of air bubbles and an effective membrane area contributing to filtering is largely taken and, therefore, the filtered flux transmitted through the membrane surface is always held to the best state and filtering can be performed by low energy.

